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Effect of Innovation Adoption on Financial Performance of Small and Medium Enterprises in Kilifi County, Kenya

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Authors' contributions

This work was carried out in collaboration among all authors. Author JMM designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Authors SK and RO provided advisory support in facilitation of the research while. Author MRA compiled the manuscript for publishing. All authors read and approved the final manuscript.

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ABSTRACT

Aims: Small and medium enterprises (SMEs), create jobs and contribute to GDP but SMEs in Kilifi County are facing stagnation and high failure rate. This study set out to test three hypothesis i.e. process innovation has no significant effect on financial performance of SME's, product innovation has no significant effect on financial performance of SME's & Structured innovation has no significant effect on the financial performance of SME's. The study is anchored on Theory of Technology Acceptance Model (TAM), Diffusion of innovation Theory and Kane's Theory of Innovation.

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Study Design: The study employed explanatory research design with use of both qualitative and quantitative data approaches.

Place and Duration of Study: The study was carried out in the year 2021/2022 in Kilifi County in Kenya.

Methodology: From a target population of 496 registered SMEs, a Sample size of 216 SMEs was drawn using simple random sampling with use of self-administered questionnaires with both open and closed ended questions collecting data from managers/owners of the SMEs.

Results: Correlation results indicated that innovation (product, process and structural) are significantly associated with financial performance. Regression results revealed existence of a significant effect of each innovation on Financial Performance; Business Structural Innovation (B=.106, p=.001), Process innovation (B=.289, p=.003) and Product innovation (B=.143, P<.001).

Conclusions: A key finding is that only one in every five SMEs in Kilifi are past their 8th birthday. Business innovation has the highest variability suggesting most of the SMEs configure their businesses to market needs. Despite business innovation being low in SMEs, it is the most yielding when it comes to its effect on financial performance. Compared to business and process innovation, product innovation has least differences among the SME. It is conclusive that innovation among the SMEs is still low but the innovation-pursuing SMEs are also performance leaders.

Keywords: Small and medium enterprises; process innovation; product innovation; structured innovation, technology adaption, financial Performance.

ABBREVIATIONS

| GDP | : Gross Domestic Product |
|-----|-------------------------------------|
| MB | : Mobile Banking |
| MFI | : Microfinance Institutions |
| MSE | : Micro and Small Enterprises |
| OLS | : Ordinary Least Squares regression |
| R&D | : Research and Development |
| ROA | : Return on Assets |
| ROE | : Return on Equity |
| SME | : Small and Medium Enterprise |
| SST | :Self Service Technologies |
| VIF | : Variance Inflation Factor (VIF) |

1. INTRODUCTION

The Organization of Economic Cooperation and (OECD) and Development the African Development Bank (AfDB) explain how SMEs played a very important role in the development of countries globally [1,2,3] Across countries at all levels of development, SMEs have an important role to play in achieving the Sustainable Development Goals (SDGs), by promoting inclusive and sustainable economic growth by fostering innovation among others. SMEs possess great potential for improvement of local technology, output diversification. development of indigenous entrepreneurship and forward integration with large scale industries [4]. Financial performance in these small firms is measured by market share, productivity, efficiency and other profitability indicators reflecting on organizational performance. A firm's performance can be divided into two main areas:

operational performance financial and performance. Financial performance is related to results like profitability and share performance, productivity and quality. Various researches emphasize how much financial performance indicators range from revenue growth, profitability, cost savings, return on investment, market share, customer lifetime value, new product launch success rates and patents. One of the most direct measures of innovation's financial impact is revenue growth. Tracking the increase in revenue generated from new or improved products, services, or processes provides an indication of whether innovation is contributing to top-line growth. The prime aim of innovation adoption is to create new, better value for the customer or end user to gain improved return on investment [5]. Innovation has therefore come in as a leverage that introduces new methods, techniques and approaches [6] to strengthen the position of financial performance in firms. The success rate of new product launches is a crucial indicator of the effectiveness of innovation processes. Tracking the percentage of new products that achieve their target sales goals can assess the efficiency of the innovation pipeline. Faster diffusion of innovations means a more immediate impact and thus a higher social return on the initial investment. Moreover, firms that are less profitable in their respective sectors are disproportionately innovative. These results are consistent with depictions that suggest more marginal firms will contribute the bulk of innovations [7]. The older, less leveraged firms located in regions with more innovations appear to be more innovative [8]. While there are many studies that define adoption in terms of implementation, usage, utilization, or satisfaction [9] the area of financial performance as influenced by innovation has been underdone in businesses as more studies focus on bluechip companies. With business performance of SME's being a major contributor to the economy, earlier studies show the sharing economy is a recent model innovative business wherein entrepreneurs collaboratively make use of underutilized resources in innovative ways. However, SME's are struggling to survive despite starting operations with enthusiasm as they seek to be more innovative and adopt new methods and techniques without a guide on which facets of innovation can lead to significant financial performance within their localities. The Performance of Small and medium enterprises in Kilifi County has not reflected the expected outcomes and a big percentage of the establishments have closed down. This study therefore seeks to study the effect of innovation adoption on financial performance of small and medium enterprises in Kilifi County in Kenya by introducing a scientific approach to the area of study. Three hypothesis have been tested i.e. process innovation has no significant effect on financial performance of SME's, product innovation has no significant effect on financial performance of SME's & Structured innovation has no significant effect on the financial performance of SME's. The study was anchored on Theory of Technology Acceptance Model (TAM), Diffusion of innovation Theory and Kane's Theory of Innovation.

1.1 SMEs and Innovations

This study defines SME in terms of number of employees which is 10-49 employees for small while medium sized enterprises were defined by 50 and 99 employees. Employees here refers to the total number of people working in the entities either partly or fully paid or not. These numbers include any working owners, fullv paid employees, unpaid family members and apprentices. The European Union defines an defines SME [10] an SMF on the elements of headcount, annual turnover and the balance sheet amounts as depicted in the Table 1.

SME'S play a pivotal role in Kenya's economy they play a key role in economic development. There are over 7.4 million MSMEs in Kenyans

they cover a wide range of establishments in almost all sectors of the economy. It is also worth noting that most MSMEs operate informally [11]. MSME Survey of 2016 reports that The distribution of MSMEs by gender of business owners was as follows: 47.9 per cent of the licensed establishments were owned by males; 31.4 per cent owned by females; and 20.7 per cent were jointly owned, with a further, 60.7 per cent of unlicensed establishments being solely owned by females. Kenva Performance Index 2019 indicates that the Real Gross Domestic product (GDP) according to 2019 Kenyan National Bureau of Statistics Economic Survey estimated to have expanded by 6.3% in 2018 as compared to 4.9% in 2017 [12]. To add on, agricultural sector as the leading contributor of Gross Domestic Product (GDP) is significantly supported by SMEs in their role of supply, value addition and distribution of the final products to the market. This calls for the need of developing small enterprises by improving the financial independence and wellbeing of communities as promoting innovation well and as entrepreneurship for enhanced adoption. SMEs Innovation. Kenya are source of in а competitiveness, goods and services, and skills. studies entrepreneurial Past have highlighted that the adoption of innovation has a relationship with the performance of SME's and contributes to it enhancing the expected outcomes in the business enterprises which ranges from business continuity even in the hard times, growth of the economy, increased liquidity, volatility reduction, reduction in transactions, the capacity to process information, search and monitoring costs, enhancing credit access and the sharing of risks [13]. SMEs often adopt unique practices to drive innovation, leveraging their strengths and adapting to their resource constraints. Common innovative practices include: open innovations that engage external partners. user-driven innovations that are customer-centric. rapid experimentation encouraging ideation and launches, resource utilization leveraging frugal operations and finally employee empowerment fostering creativity and initiative [14,15]. The intention to use any new product or service requires potential user to have certain level of readiness. Studies by Rogers (2003) identified several attributes of an innovation that are key influences on adoption behavior including relative advantage, complexity, compatibility, trialability, and observability. An innovation where a firm and customer interface that enables customers be served without the need of a service employee involvement was termed as a self-service technology (SST) [16]. In the SME sectors, a variety of self-service technologies including internet banking (IB) and mobile banking (MB) are available. Mobile Banking is among the recent SSTs in the financial services context providing mobility in the consumption of banking services [17]. Consumer adoption and usage of MB which is characterized as a complex process due to interplay of many factors that are still under research [18]. It is further suggested that technology, social, channel and personal related factors mainly affect consumer behavior toward SST usage intentions [19].

1.2 Theories Guiding Study

Schumpeter (1934) introduces the Theory of Innovation which is grounded on how much creatively entrepreneurs utilize or apply inventions and discoveries leading to more improved products with hiaher customer satisfaction and profits [20]. Kane (1984), discusses how institutional response to financial costs is created by changes in technology, market needs, and laws and regulations. Kane refers to the interactive process of regulation that follows institutional avoidance and innovations as dialectical process. Kane's theory is very applicable to the financial industry which is highly sophisticated with stricter regulations and financial institutions have to deal with these regulations in order to reduce the potential risks to the minimum [21]. On the other hand, According to Theory of Disruptive Innovation (Christensen, 1995) the process in which a smaller company, usually with fewer resources, is able to challenge an established business by entering at the bottom of the market and continuing to move up-market. Rogers (1995) explained that diffusion of innovation was the process by which an innovation is communicated through certain channels over time among members of a social system. It could be considered as one of the theories that have attempted to explore factors that affect an individual to adopt an innovation or a new technology [22]. Rogers identified several attributes of an innovation that are key influences on adoption behavior. DIT presents five innovation characteristics that are backgrounds to any adoption: relative advantages, complexity, compatibility, observability and trialability while studies discuss the four groups of innovation adoption drivers as innovation features, social context. channel credibility and personal characteristic [23,24].

1.3 SME Growth and Innovation in Kilifi

Earlier researches has shown that growth of financial performance in SMEs adopt a common platform in the sharing of economies by dominating a common business environment. The sharing economy is a recent innovative business model wherein entrepreneurs collaboratively make use of underutilized resources in innovative ways [25]. The performance of Small and medium enterprises in Kilifi County has not reflected the expected outcomes and a big percentage of the establishments have closed down. Making reference to the 2018/2020 Kilifi County Development Review Plan (KCDRP). the performance of SMEs has depicted stagnation on the basis of select indices. Essentially, only agro-processing SMEs that are established and are functional while showing an increase by 10%. The other critical indices, including the proportion of MSEs supported financially, policy and legislative frameworks that were enacted and are functional, loan amounts released to SMEs from county funds, the number of industries/SMEs supported financially, the proportion of Micro and Small Industries (MSIs) graduated to MSMES Status, and the proportion of youth employed in MSMEs, has shown no improvement [26,27]. Despite poor performance as revealed in the 2018 to 2020 KCDRP no action has been taken into account to address it is reported the main problem is lack of collateral which can be modified to address challenges cited to be underpinning financial performance by adopting to the rapid change in technology and its implication in financial performance in SME's [28]. The few studies conducted in Kilifi County mainly focused on the financial performance of formal institutions like microfinance, Saccos and banking institution as well researches on the influence of information technology innovation on business firm performance in Kenya and the effect of innovation on firm performance [29-35]. The current existing knowledge on SME's financial performance as a function of selfservice technology an innovation in Kenya is scanty and sparsely documented [36]. This study therefore aimed at establishing the effect of innovation adoption on financial performance of small and medium enterprises in Kilifi County in Kenya. This research therefore tests three null hypotheses i.e. H₀₁ business innovation has no significant influence on performance, Ho2 process innovation has no significant influence on SME performance and H₀₃ product innovation has no significant influence on SME performance.

| Category | Headcount | Turnover in Euros | Balance Sheet Total in Euros |
|--------------|----------------|----------------------|------------------------------|
| Micro | 1-9 | <2 Million | <2 Million |
| Small | 10-49 | <10 Million | <10 Million |
| Medium-sized | 50-99 | <50 Million | <43 Million |
| | Source: Europt | at (2010) The Europ | oon Union |

Table 1. Classification of SMEs

Source: Eurostat (2019), The European Union

2. MATERIALS AND METHODS

The Study adopted causal research design with use of quantitative data approaches. The target population for this study were 496 registered SMEs based on Kilifi County in Kenya. The sample size of 216 SMEs was a third of the target population making the results reliable. The sample size was made up of three strata i.e. owners, supervisors and workers from stratified sampling for efficient research design. The study used both secondary (journals, books, industry reports and expert magazines) and primary (questionnaire) data sources. After using simple random sampling to draw respondents from each stratum, self-administered questionnaires with both closed and open-ended questions were subjected to the respondents to help in collecting in-depth information as well as collect uniform and standardized data. The validity of the questionnaire was established using a panel explored experts who theoretical of construct emphasized by use of related theory and a conceptual framework that related variables which were tested. The reliability was determined through Cronbach's alpha which was a measure of internal consistency of a coefficient of 0.70. The likert scale was used to quantify qualitative data. Descriptive statistics together with causal relationship establishment was done by use of linear correlation rearession model and which sought to test the relationship of three major variables i.e. business innovation, process innovation and product innovation against SME financial performance. The studv centers on the relationship of variables of innovation and SME performance with reviewed literature demonstrating that innovation is positivelv correlated with measures of performance SME including financial performance (revenue growth, profitability and performance market operational share)., efficiency, customer (productivity, and satisfaction) and market performance (market share, brand reputation and new market opportunities).

3. RESULTS AND DISCUSSION

3.1 Results

3.1.1 Demographic data of respondents

The demographic findings of the study describe the characteristics of the respondent group as summarized in Table 2. Out of the 209 respondents, 85 (41%) were female and the remaining 124 (59%) being male. In terms of education level attained by the SME owners, majority are either secondary school education (43%, n=89) leavers or primary (40%, n=84). education Majority of the respondents were business owners (55%, n=115) with the rest being employees in the SMEs (45%, n=94).

3.1.2 Characteristics of SMEs

The characteristic of the SMEs is presented in Table 3. A high number of the SMEs are within the trade sector (76%, n=159) and are registered (87%, n=181). Most of them are also between 1 to 3 years old (38%, n=80) following in by 4 to 7 years old (26%, n=54). A key finding is that only one in every 5 SMEs in Kilifi are past their 8th birthday (21%, n=43). Most SMEs employ between 10-49 employees (30%, n=63) and 21 % of them are run by owners with no employees. The capital base for most SMEs is either below KSH. 50, 000 (54%, n=113) or between KSH. 50,000 and KSH. 100,000 (36%, Regarding the technology n=75). SMEs commonly use for business transactions, a combination of either mobile transacting represented by the MPESA platform & Cheque (29%, n=61) and MPESA & CASH (19%, n=37) is also used.

3.1.3 Reliability results & factor analysis

The reliability of the data collection tool was assessed using the Cronbach alpha which is a measure of consistency of the item. The results is shown in Table 4 where the Crobach's alpha values are all greater than the recommended value of 0.7 showing the questionnaire demonstrated adequate reliability.

The factor analysis results in Table 5 indicate that the data separate out into four distinct constructs. Since the items show strona correlation to their constructs, items in one construct were therefore averaged to construct a scale representing the construct. The performance scale was formed by averaging the 4 performance items and the constructed scale variable appended to original data set for further analysis. Using the procedure, four scales were constructed whose descriptive analysis, correlation and regression analysis are presented in the sections that follow.

3.1.4 Innovation adoption descriptive variations

The mean statistic is an indicator of most scores. From, the results obtained, performance, structure, process and business product innovation have mean values of 1.66, 3.57, 2.68 and 3.31 respectively. SME Performance was assessed to determine the increased in productivity, financial benefits, growth and efficiency has a mean of 1.66, SD=0.743) showing that the respondents report that most SMEs are not performing. They acknowledge that the productivity, financial benefits, efficiency and growth are below are not doing well. The mean for business innovation is 3.57 (SD=1.086) suggesting that most of the SMEs configure their businesses regularly to reflect on the real market needs. The standard deviation measures the variability in business innovation among SMEs in Kilifi county. The SD result shows that among all three types of innovation, business innovation has the highest variability. The skewness and kurtosis values are all less than 1 indicating no significant departure of opinions from normal distribution. The mean of process innovation is 2.68 (SD=1.055) suggesting that most of the SMEs configure their processes to reflect on the real market needs. The standard deviation measures the variability in process innovation among SMEs in Kilifi county. The SD result shows that among all three types of innovation, proccess innovation is the second highest variability. The skewness and kurtosis values are all less than 1 indicating no significant departure of opinions from normal distribution.

When it comes to product innovation, the mean is 3.31 (SD=0.957) indicating that most SME are

indifferent regarding efforts to creating and introducing something new to the market.

The standard deviation measures the variability in product innovation among SMEs in Kilifi County. However, compared to business and process innovation, product innovation has least differences among the SME. The skewness and kurtosis values of product innovation are all less than 1 indicating no significant departure of opinions from normal distribution.

This section assessed the intensity of innovation, considering the mean values alone, it is conclusive that innovation among the SMEs is still low because the empirical mean values for the three innovations are all are in the range of either neutral or disagree. This is especially the case for process innovation (mean=2.68) and product Innovation (mean=3.31, SD=0.957).

3.1.5 Innovation adoption correlation results

Correlation results shows that business innovation and performance are related (r=.219, p=.001) meaning that SMEs intensify innovate their business structures, on average, realize higher performance than those SME with low business innovation.

On the other hand process innovation and performance are significantly and positively related; (r=0.629, p<.001). This positive correlation between SMEs process innovation and performance means that SMEs that excel in process innovation also outperform SMEs that are low in process innovation. Product innovation and SME performance are also positively and significantly related (r=0.303, p<.001). SMEs that distinctively add new features to existing product or come up with different and services product, are associated with higher performance than SMEs with limited in this aspect. In considering the whole correlation results, it is indicative that, on average, innovation-pursuing SMEs are also performance leaders.

3.1.6 Regression assumptions

The assumption of normality of regression residual was tested using the histogram. The results in Fig. 1 shows that the distribution of the residuals does not significantly deviate from normal distribution; the curve roughly takes the shape of normal curve. Thus, the normality assumption is met. Mwakera et al.; Asian J. Econ. Busin. Acc., vol. 23, no. 24, pp. 58-71, 2023; Article no.AJEBA.110100

| Gender | Male | 85 | 41% |
|-----------|-----------------------|-----|-----|
| | Female | 124 | 59% |
| Education | Degree And Above | 0 | 0% |
| | Vocational Training | 13 | 6% |
| | Secondary School Cert | 89 | 43% |
| | Primary Cert | 84 | 40% |
| | No Formal Educ | 23 | 11% |
| Position | Business Owner | 115 | 55% |
| | Worker | 94 | 45% |

Table 2. Demographic characteristics of respondents

Source: (Field Data, 2021)

| Sector | Manufacturing | 2 | 1% |
|--------------------|----------------------------|-----|-----|
| | Service | 34 | 16% |
| | Trade | 159 | 76% |
| | Agriculture | 14 | 7% |
| Registered | Yes | 181 | 87% |
| | No | 28 | 13% |
| Years of operation | Less Than 1 Year | 32 | 15% |
| | 1 To 3 Years | 80 | 38% |
| | 4 To 7 Years | 54 | 26% |
| | 8 Years And Above | 43 | 21% |
| Technology use | Mpesa | 50 | 24% |
| | Hardcash | 21 | 10% |
| | Cheque | 17 | 8% |
| | Mpesa And Hard Cash | 37 | 18% |
| | Mpesa And Cheque | 61 | 29% |
| | Mpesa And Moneylink | 2 | 1% |
| | Mpesa Hard Cash Cheque | 5 | 2% |
| | Mpesa Cheque Moneylink | 16 | 8% |
| No. Of Employees | 0 (owner) | 43 | 21% |
| | 0-9 | 44 | 21% |
| | 10-49 | 63 | 30% |
| | 50 And Above | 59 | 28% |
| Capital | 0 | 7 | 3% |
| · | Upto Kes.50,000 | 113 | 54% |
| | Kes.50,000 To Kes.100,000 | 75 | 36% |
| | Kes.100,001 To Kes.500,000 | 14 | 7% |
| | Above Kes.501,000 | 0 | 0% |
| Payment mode | Cash | 78 | 37% |
| | M-Payment | 0 | 0% |
| | E-Payment | 9 | 4% |
| | Cash And M-Payment | 122 | 58% |
| Mode year | Yes | 85 | 41% |
| | No | 124 | 59% |
| Perfomeasu r | Number Of Customer | 14 | 7% |
| | Volume Of Scale | 103 | 49% |
| | Profits | 86 | 41% |
| | No Of Cust And Profit | 6 | 3% |

Table 3. Characteristics of SMEs

Source: (Field Data, 2021)

| Construct | No of items | Cronbach's Alpha | Conclusion |
|-------------------------------|-------------|------------------|------------|
| Performance | 4 | .956 | Acceptable |
| Business Structure innovation | 6 | .904 | Acceptable |
| Process innovation | 4 | .890 | Acceptable |
| Product innovation | 4 | .900 | Acceptable |
| | | | |

Table 4. Cronbach alpha reliability results

Source: (Field Data, 2021)

Table 5. Descriptive variations results for performance, business structure, process and product innovation (n=209)

| | Mean | SD | Ske | wness | Ku | rtosis |
|-----------------------|-----------|-----------|-----------|------------|-----------|------------|
| | Statistic | Statistic | Statistic | Std. Error | Statistic | Std. Error |
| Performance | 1.66 | .743 | .642 | .168 | 928 | .335 |
| Business structure | 3.57 | 1.086 | 601 | .168 | .142 | .335 |
| Processes | 2.68 | 1.055 | .225 | .168 | 128 | .335 |
| Product Innovation | 3.31 | .957 | 249 | .168 | 280 | .335 |

Source: (Field Data, 2021)

Table 6. Innovation adoption correlation results

| | | BUSINESS | PROCESS | PRODUCT | PERFOR |
|---|-----------------|----------|---------|---------|--------|
| Business | Pearson | 1 | | | |
| | Correlation | | | | |
| | Sig. (2-tailed) | | | | |
| Process | Pearson | .209** | 1 | | |
| | Correlation | | | | |
| | Sig. (2-tailed) | .002 | | | |
| Product | Pearson | .373** | .522** | 1 | |
| | Correlation | | | | |
| | Sig. (2-tailed) | .000 | .000 | | |
| Performance | Pearson | .219** | .629** | .303** | 1 |
| | Correlation | | | | |
| | Sig. (2-tailed) | .001 | .000 | .000 | |
| **. Correlation is significant at the 0.01 level (2-tailed). Listwise N=209 | | | | | |

Source: (Field Data, 2021)

The no multi-co-linearity assumptions was tested using Variance Inflation Factor (VIF) statistic. VIF values less than 10 depict no significant multi-colinearity as require. The VIF values are all less than 10 as required meaning that the assumption is met.

The constant variance assumption (Heteroscedasticity) is assessed using the scatter plot of residual versus predicted values. When the distribution of the scatter points are evenly distributed over the regression line, (x = 0) the assumption is met. As shown in Fig. 2, the assumption of constant variance is met. The residuals have a constant variance across all values of the dependent variable.

3.1.7 Effect of innovation on performance: Regression analysis

The three innovation variables were regressed on performance to determine the influence of each innovation on performance. The R square in model summary results and the F ratio in the ANOVA results are the model adequacy test statistics used to conclude on the fitness of the regression results. From the results in Table 8, the R square is 0.409 indicating that the innovation accounts for 40.9 percent of variability in SME performance. However, when adjusted for number of model independent variables, innovation accounts for 39.9 percent of variations in SME performance. This results underpin the critical role of innovation in transforming SMEs.

innovation is a significant predictor of performance.

The Analysis of Variance results, ANOVA, which is a test of goodness of the whole model is shown in Table 9. The results shows that model is significant ($F_{(3,205)}$ =45.976) meaning that

The coefficient results depicted in Table 10 indicate that business innovation has a significant positive effect on SME performance (B=0.106, p=0.003, thus the hypothesis H01 that



Fig. 1. Histogram of residual to Assess Normality assumption Source: (Field Data, 2021)



Fig. 2. Scatter plot of predicted versus residuals to assess constant variance assumptions Source: (Field Data, 2021)

business innovation has no significant influence on performance is rejected at 0.05 level of significance. The results shows that Process Innovation has a significant positive influence on performance of SMEs (B=0.299, p<.001). Thus, the hypothesis HO2; process innovation has no significant influence on SME performance, is also rejected. It is established that process innovation is a significant in SME sector. Product Innovation has a positive significance influence on SME Performance (B=0.143, p<.001). The hypothesis H03; product innovation has no significant influence on SME performance is rejected at 0.05 level of significance. In sum, the results shows both Technological Innovation (process product Innovations) and Business and Innovation as a positive significance effect on SME performance.

Table 7. VIF results to test for multi-colinearity assumptions

| Independent Variable in the | Collinearity Statistics | | |
|--------------------------------|----------------------------|-------|--|
| model | Tolerance | VIF | |
| Business innovation | .360 | 2.777 | |
| Process innovation | .284 | 3.517 | |
| Product innovation | .345 | 2.901 | |
| Source: /Field | 1 Data 2021) | | |

Source: (Field Data, 2021)

Table 8. Model summary

| R | R | Adjusted | Std. Error |
|-------|--------|----------|------------|
| | Square | R Square | of the |
| | | | Estimate |
| .638ª | .407 | .399 | .346 |
| | • | | |

Source: (Field Data, 2021)

Table 9. ANOVA results on the effect on innovation on performance

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|--------|-------------------|
| 1 | Regression | 16.888 | 3 | 5.629 | 46.976 | .000 ^b |
| | Residual | 24.566 | 205 | .120 | | |
| | Total | 41.455 | 208 | | | |
| | | - | | | | |

Source: (Field Data, 2021)

Table 10. Regression coefficients of effect of innovation on Performance

| | Coefficients | | | | | | |
|------------|--------------------------|----------------|------------|--------------|--------|------|--|
| Innovation | | Unstandardized | | Standardized | t | Sig. | |
| | | В | Std. Error | Beta | _ | | |
| 1 | (Constant) | 2.627 | .131 | | 20.066 | .000 | |
| | Business innovation | .106 | .067 | .113 | 2,865 | .001 | |
| | Process innovation | .289 | .28 | .645 | 2.257 | .003 | |
| | Product innovation | .143 | .038 | .076 | 3.763 | 000 | |
| a. | Dependent Variable: IVC8 | | | | | | |

Source: (Field Data, 2021)

The regression model PERFORMANCE = 2.627 + .106BUSSiNNOVATIO + .289pROCESSES + .143PRODUCT

4. DISCUSSION OF KEY FINDINGS

Based on a survey of 209 SMEs in Kilifi County. the empirical results revealed that innovation has significant enhancing effect on а SME performance. A key finding is that only one in every five SMEs in Kilifi are past their 8th birthday. Among all three types of innovation, business innovation has the highest variability suggesting that most of the SMEs configure their businesses regularly to reflect on the real market needs. Despite business innovation being low in SMEs, it is the most yielding when it comes to its effect on financial performance. Compared to business and process innovation, product innovation has least differences among the SME.

It is conclusive that innovation among the SMEs is still low but the innovation-pursuing SMEs are also performance leaders meaning that SMEs who emphasize on innovative business structures, realize higher performance than those with low business innovation. These results underpin the critical role of innovation in transforming SMEs as innovation is a significant predictor of performance. The results confirm findings in previous studies on innovation and performance [37,38,39]. This positive relation underpin the critical benefits of innovation towards financial stability and eventual survival of SMEs. The empirical results shows that Process Innovation has the strongest positive effect on FP of SMEs. This confirms most previous studies

that found a similar positive effect [40]. In an organization or business such as an SME, the positive effect of innovation on performance is a result of significant changes in delivery method, techniques, equipment and/or software [41]. When the customers appreciate these changes, the demand for the goods or services of the SMEs rise and ultimately enable the company achieve many of its goals including performance goal. Empirical findings also revealed а significant positive effect of product innovation on SME performance. A number of other previous studies on product innovation and performance have had similar findings [42,43]. This positive effect results of product innovation on financial performance of SMEs reiterate the benefits of SMEs confiaurina their products/services. Product Innovation involves configuring products in ways that lead to better quality or added value, or increased product range. All these features are drivers of demand and the demand for the company product rises resulting to triggering rise in sales of the SME products. The positive relation results further suggest that product innovation leaders have definite competitive advantage over the laggards and are better positioned to navigate the competitive business terrain. This is because, Product Innovation improve productivity, reduced costs, increased competitiveness, improved brand recognition and value [44]. In sum, product Innovation is an enabler of FP and SMEs that invest in PI position themselves in vintage position towards better Financial Performance, high survival rate and growth. Innovation benefits an organization in many way; handling legal and environmental improve staff retention, motivate issues. employees and build a product range with added value [45]. Though these benefits comes at cost to an organization, in the long run they drive an organization or business entity such as an SME to attain financial goals. By SMEs investing in innovation-enhancing activities, the path to achieving financial stability is mapped out.

5. CONCLUSION

The SMEs have many positive impacts in the society; job creation and contribution to GDP in Kenya. High innovation is critical towards this noble role SMEs play in society. The study found that the level of innovation is low. Therefore, SMEs in Kilifi are yet to fully benefit from innovation. Low innovation is critical barrier to growth and survival of SMEs as businesses keep imitating what is in the market

to avoid risk. Those SMEs that lack new product or processes or change of business structure remain less competitive. As a pillar for employment creation, SMEs should have innovative structures for continuous growth. SMEs can grow and benefit the society through inculcating a strong culture of configuring their businesses to reflect the changes in the market.

6. RECOMMENDATIONS

SME should configure their business regularly to reflect on the emerging trends in the market. Both innovation. process and business innovations are low and there is need to raise them. Within an organization, a number of effective strategies to raise the innovation in organizations exists; allow risk taking, try new ideas, embrace change and have a vibrant collaborative workforce. Government as a key actor in determining the establishment and growth of SMEs, they can support innovation fostering a sound business environment, helping SMEs to develop and use their internal strategic resources effectively, and building an innovative system that is effective in the commercialization of research and inclusive of a large range of SMEs. Whereas every effort was put to ensure reliable primary data to measure level of performance, the research is cognizant of the subjectivity of such data. Future studies should secondary use data financial especially on SME performance because it is more objective than primary sources. The current study examined a simple innovation-performance model. This model may not consider the interplay of many other forces such as mediation role of employee/owner motivation. Future research should build on this model as baseline model to investigate a model that includes mediation and moderation factors of the Innovation performance link.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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